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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,893	08/27/2003	Paul W. Brown	111935-00009	5096
3705 7590 01/26/2007 ECKERT SEAMANS CHERIN & MELLOTT 600 GRANT STREET 44TH FLOOR PITTSBURGH, PA 15219			EXAMINER JOHNSON, EDWARD M	
			ART UNIT	PAPER NUMBER
			1754	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/26/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/648,893

**Applicant(s)**

BROWN, PAUL W.

**Examiner**

Edward M. Johnson

**Art Unit**

1754

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 7-16 is/are rejected.
- 7) ☒ Claim(s) 2-6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 7-16 are rejected under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Snyder et al. US 5,640,704.

Regarding claim 1, Snyder '704 discloses a process for treatment for immobilizing nitrate waste (abstract) comprising mixing with ferric and ferrous oxide and alumina (see abstract and column 3, lines 16-29 and 49-55) or hydroxides (see column 2, lines 44-46), and solidifying (see abstract), which would inherently incorporate at least some of the disclosed immobilized nitrate waste.

When the examiner has reason to believe that the functional language asserted to be critical for establishing novelty in claimed subject matter may in fact be an inherent characteristic of the prior art, the burden of proof is shifted to Applicant to prove that the subject matter shown in the prior art does not

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possess the characteristics relied upon. In re Fitzgerald et al. 205 USPQ 594. As a practical matter, the Office is not equipped to manufacture or obtain products and make resulting comparisons with the claimed invention. Where, as here, the burden has been shifted to applicant, it is appropriate to make a rejection based upon §102 as well as §103.

Regarding claims 7-13 and 15, Snyder discloses CaO, Al<sub>2</sub>O<sub>3</sub>, Sr, and ferric oxide (see column 3, lines 16-29 and 49-55; and Table 1).

Regarding claim 14, Snyder '704 discloses fixation within the grout crystalline structure (see column 4, lines 1-9). Snyder further discloses various industrial processes (column 1), which would at least suggest an exothermic reaction.

Regarding claim 16, Snyder '704 discloses radioactive waste (abstract), which would have a temperature sufficient to at least resist the formation of liquid droplets.

#### **Response to Arguments**

3. Applicant's arguments filed 11/27/06 have been fully considered but they are not persuasive.

It is argued that as shown in the Abstract of Snyder... of the grout. This is not persuasive because contrary to Applicant's assertion that the prior art does not refer to the conversion of nitrate compounds to solids, Snyder '704 discloses

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a process for treatment for immobilizing nitrate waste  
(abstract).

It is argued that Snyder et al... hydrated iron oxide. This is not persuasive because Snyder discloses hydroxides (see column 2, lines 44-46).

It is argued that claim 14 is rejected... column 3, line 65. This is not persuasive for the reasons above. Snyder '704 discloses a process for treatment for immobilizing nitrate waste (abstract).

It is argued that claim 16 is not taught by Snyder et al... seen in Snyder et al. This is not persuasive because Snyder '704 discloses radioactive waste (abstract), which would obviously, to one of ordinary skill, have a temperature sufficient to at least resist the formation of liquid droplets.

**Allowable Subject Matter**

4. Claims 2-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: Claims 2-6 each separately recite reaction of a specific compound and the prior art does not disclose or fairly suggest the claimed reactions in the method

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of immobilizing nitrate or nitrite ions in aqueous waste of the instant claims 2-6.

**Conclusion**

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

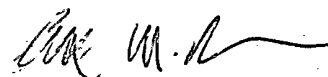
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward M. Johnson whose telephone number is 571-272-1352. The examiner can normally be reached on M-F 9:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley S. Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Edward M. Johnson  
Primary Examiner  
Art Unit 1754

EMJ

